

Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (previously amended in PCT) A pharmaceutical pig for transportation of a radiopharmaceutical in a syringe, the pig comprising:  
an elongate base characterized by an inner and outer shell of the base completely enclosing a base shielding element;  
an elongate cap removably attached to the base, the cap characterized by an inner and outer shell of the cap completely enclosing a cap shielding element, wherein the pig is characterized in that a portion of the cap shielding element overlaps a portion of the base shielding element.
2. (previously amended in PCT) The pig of claim 1, further including a flexible sleeve, at least a portion of which is transparent, removably disposed about the outer shell of the base.
3. (previously amended in PCT) The pig of claim 2, further including a label disposed between the flexible sleeve and the outer shell of the base.
4. (currently amended) The pig of ~~any preceding claim 1~~, wherein the base shielding element and the cap shielding element are formed from lead.
5. (currently amended) The pig of ~~any of claims 1-3~~, wherein the base shielding element and the cap shielding element are formed from a metallic-filled polymer composite material.
6. (currently amended) The pig of ~~any preceding claim 1~~, wherein the inner and outer shell of the base are formed from stainless steel and are welded together to hermetically enclose the base shielding element to prevent contamination of the base shielding element, and the inner and outer shell of the cap are also formed from stainless steel and are welded together to hermetically enclose the cap shielding element to prevent contamination of the cap shielding element.

7. (currently amended) The pig of ~~any preceding claim~~ 6, further comprising a plurality of keyhole-shaped slots defined in the cap, wherein the slots are sized and arranged to receive a plurality of screws extending from the base to removably lock the cap to the base when at least one of the cap and base are rotated to engage the screws in the keyhole-shaped slots.

8. (currently amended) The pig of ~~any preceding claim~~ 1, wherein a hollow center section of the base is sized to accommodate a needle and at least a portion of a barrel of a syringe, and a hollow center section of the cap is sized to accommodate at least a portion of a plunger of the syringe.

9-10. (cancelled)

11. (currently amended) The pig of ~~any of claims 4-10~~ 8, further including a flexible sleeve, at least a portion of which is transparent, to slip on and off at least a portion of the base to removably secure a label to the base.

12. (currently amended) The pig of ~~any preceding claim~~ 1, wherein the base shielding element is tapered near a syringe needle-accommodating portion of the pig, and the cap shielding element is of generally uniform thickness.

13. (currently amended) The pig of ~~any preceding claim~~ 12, further comprising means for enabling a bayonet-type interconnection of the cap and the base.

14. (currently amended) The pig of ~~any of claims 7-13~~ 1, further comprising means for enabling a bayonet-type interconnection of the cap and the base, wherein the inner and outer shell of the base are formed from stainless steel and are welded together to hermetically enclose the base shielding element to prevent contamination of the base shielding element and the inner and outer shell of the cap are also formed from stainless steel and are welded together to hermetically enclose the cap shielding element to prevent contamination of the cap shielding element.

15. (currently amended) The pig of ~~any of the preceding claims~~ 1, further comprising an elastomeric ring compressed between the cap and base, and a plurality of keyhole-shaped slots in the cap sized and aligned to receive a plurality of screws extending from the base to removably lock the cap to the base when the cap and base are rotated in opposite directions to engage the screws in the keyhole-shaped slots.

16. (currently amended) The pig of ~~any preceding claim~~ 1, wherein a portion of the base shielding element is disposed about a portion of the outer shell of the cap.

17. (cancelled in PCT)

18. (previously amended in PCT) The pig of claim 1, wherein:

the inner and outer shell of the base are formed from stainless steel, and a hollow center section of the base is sized to accommodate a needle and at least a portion of a barrel of a syringe;

the inner and outer shell of the cap are formed from stainless steel, and a hollow center section of the cap is sized to accommodate at least a portion of a plunger of a syringe;

the cap shielding element has a generally uniform thickness;

the base shielding element is tapered in thickness near a portion of the hollow center section of the base that is sized to accommodate the needle; and

the base and cap include means for enabling a bayonet-type interconnection of the cap with the base.

19-29. (cancelled)

29. (new) An assembly for transporting a radiopharmaceutical, comprising:

a syringe having a needle, a barrel, and a plunger; and

a pharmaceutical pig comprising:

a base characterized by an inner and outer shell of the base completely enclosing a base shielding element;

an elongate cap removably attached to the base, the cap characterized by an inner and outer shell of the cap completely enclosing a cap shielding element; and

means for enabling a bayonet-type interconnection of the cap and the base,

wherein the syringe is disposed within an inner cavity of the pig, wherein a first portion of the cavity is defined by the base of the pig and is sized to accommodate the needle and at least a portion of the barrel of the syringe, and wherein a second portion of the cavity is defined by the cap of the pig and is sized to accommodate at least a portion of the plunger of the syringe.

30. (new) The assembly of claim 29, wherein said means comprises:

a plurality of slots defined in the cap;

a plurality of screws extending from the base, wherein the screws are disposed in the slots defined in the cap; and

an elastomeric ring compressed between the cap and base, and disposed about at least a portion of the syringe.

31. (New) The assembly of claim 29, further comprising:

a flexible sleeve, at least a portion of which is transparent, disposed about at least a portion of the outer shell of the base; and

a label disposed between said flexible sleeve and said outer shell of said base.

32. (new) The assembly of claim 29, wherein the base shielding element is tapered near the needle of the syringe, the cap shielding element is of generally uniform thickness.

33. (new) The assembly of claim 29, wherein a portion of the cap shielding element overlaps a portion of the base shielding element, and a portion of the inner shell of the base is disposed about a portion of the outer shell of the cap.

Clean Listing of the Claims:

1. (previously amended in PCT) A pharmaceutical pig for transportation of a radiopharmaceutical in a syringe, the pig comprising:

an elongate base characterized by an inner and outer shell of the base completely enclosing a base shielding element;

an elongate cap removably attached to the base, the cap characterized by an inner and outer shell of the cap completely enclosing a cap shielding element, wherein the pig is characterized in that a portion of the cap shielding element overlaps a portion of the base shielding element.

2. (previously amended in PCT) The pig of claim 1, further including a flexible sleeve, at least a portion of which is transparent, removably disposed about the outer shell of the base.

3. (previously amended in PCT) The pig of claim 2, further including a label disposed between the flexible sleeve and the outer shell of the base.

4. (currently amended) The pig of claim 1, wherein the base shielding element and the cap shielding element are formed from lead.

5. (currently amended) The pig of claim 1, wherein the base shielding element and the cap shielding element are formed from a metallic-filled polymer composite material.

6. (currently amended) The pig of claim 1, wherein the inner and outer shell of the base are formed from stainless steel and are welded together to hermetically enclose the base shielding element to prevent contamination of the base shielding element, and the inner and outer shell of the cap are also formed from stainless steel and are welded together to hermetically enclose the cap shielding element to prevent contamination of the cap shielding element.

7. (currently amended) The pig of claim 6, further comprising a plurality of keyhole-shaped slots defined in the cap, wherein the slots are sized and arranged to receive a plurality of screws

extending from the base to removably lock the cap to the base when at least one of the cap and base are rotated to engage the screws in the keyhole-shaped slots.

8. (currently amended) The pig of claim 1, wherein a hollow center section of the base is sized to accommodate a needle and at least a portion of a barrel of a syringe, and a hollow center section of the cap is sized to accommodate at least a portion of a plunger of the syringe.

9-10. (cancelled)

11. (currently amended) The pig of claim 8, further including a flexible sleeve, at least a portion of which is transparent, to slip on and off at least a portion of the base to removably secure a label to the base.

12. (currently amended) The pig of claim 1, wherein the base shielding element is tapered near a syringe needle-accommodating portion of the pig, and the cap shielding element is of generally uniform thickness.

13. (currently amended) The pig of claim 12, further comprising means for enabling a bayonet-type interconnection of the cap and the base.

14. (currently amended) The pig of claim 1, further comprising means for enabling a bayonet-type interconnection of the cap and the base, wherein the inner and outer shell of the base are formed from stainless steel and are welded together to hermetically enclose the base shielding element to prevent contamination of the base shielding element and the inner and outer shell of the cap are also formed from stainless steel and are welded together to hermetically enclose the cap shielding element to prevent contamination of the cap shielding element.

15. (currently amended) The pig of claim 1, further comprising an elastomeric ring compressed between the cap and base, and a plurality of keyhole-shaped slots in the cap sized and aligned to receive a plurality of screws extending from the base to removably lock the cap to the base when

the cap and base are rotated in opposite directions to engage the screws in the keyhole-shaped slots.

16. (currently amended) The pig of claim 1, wherein a portion of the base shielding element is disposed about a portion of the outer shell of the cap.

17. (cancelled in PCT)

18. (previously amended in PCT) The pig of claim 1, wherein:

- the inner and outer shell of the base are formed from stainless steel, and a hollow center section of the base is sized to accommodate a needle and at least a portion of a barrel of a syringe;

- the inner and outer shell of the cap are formed from stainless steel, and a hollow center section of the cap is sized to accommodate at least a portion of a plunger of a syringe;

- the cap shielding element has a generally uniform thickness;

- the base shielding element is tapered in thickness near a portion of the hollow center section of the base that is sized to accommodate the needle; and

- the base and cap include means for enabling a bayonet-type interconnection of the cap with the base.

19-30. (cancelled)

29. (new) An assembly for transporting a radiopharmaceutical, comprising:

- a syringe having a needle, a barrel, and a plunger; and

- a pharmaceutical pig comprising:

- a base characterized by an inner and outer shell of the base completely enclosing a base shielding element;

- an elongate cap removably attached to the base, the cap characterized by an inner and outer shell of the cap completely enclosing a cap shielding element; and

- means for enabling a bayonet-type interconnection of the cap and the base,

wherein the syringe is disposed within an inner cavity of the pig, wherein a first portion of the cavity is defined by the base of the pig and is sized to accommodate the needle and at least a portion of the barrel of the syringe, and wherein a second portion of the cavity is defined by the cap of the pig and is sized to accommodate at least a portion of the plunger of the syringe.

30. (new) The assembly of claim 29, wherein said means comprises:

- a plurality of slots defined in the cap;

- a plurality of screws extending from the base, wherein the screws are disposed in the slots defined in the cap; and

- an elastomeric ring compressed between the cap and base, and disposed about at least a portion of the syringe.

31. (New) The assembly of claim 29, further comprising:

- a flexible sleeve, at least a portion of which is transparent, disposed about at least a portion of the outer shell of the base; and

- a label disposed between said flexible sleeve and said outer shell of said base.

32. (new) The assembly of claim 29, wherein the base shielding element is tapered near the needle of the syringe, the cap shielding element is of generally uniform thickness.

33. (new) The assembly of claim 29, wherein a portion of the cap shielding element overlaps a portion of the base shielding element, and a portion of the inner shell of the base is disposed about a portion of the outer shell of the cap.